CimPACK Version 21

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CAD Portion of the Program

Importing PDF files

The biggest single change to version 21 is also one of the most important. For a long time we have relied on PSToEdit to read in PDF files into CimCAD / CimPACK. However, over the last few years it has gradually become a less than ideal option. For the Service Pack 1 release of Version 20 we actually downgraded the version of PSToEdit to an older one as was more reliable than the new one.

For Version 21 we have instead changed over to the Inkscape product which has a stand alone version pictured below, but also has what we needed so were able to integrate it into CimCAD / CimPACK. The PDF file is read into Inkscape which outputs an SVG file and which is subsequently read into CimCAD / CimPACK. Reading in PDF files is of course so common, and this has been able to read in every file we have seen in the last six months that wouldn't read into PSToEdit anymore.

We are pleased with this upgrade.
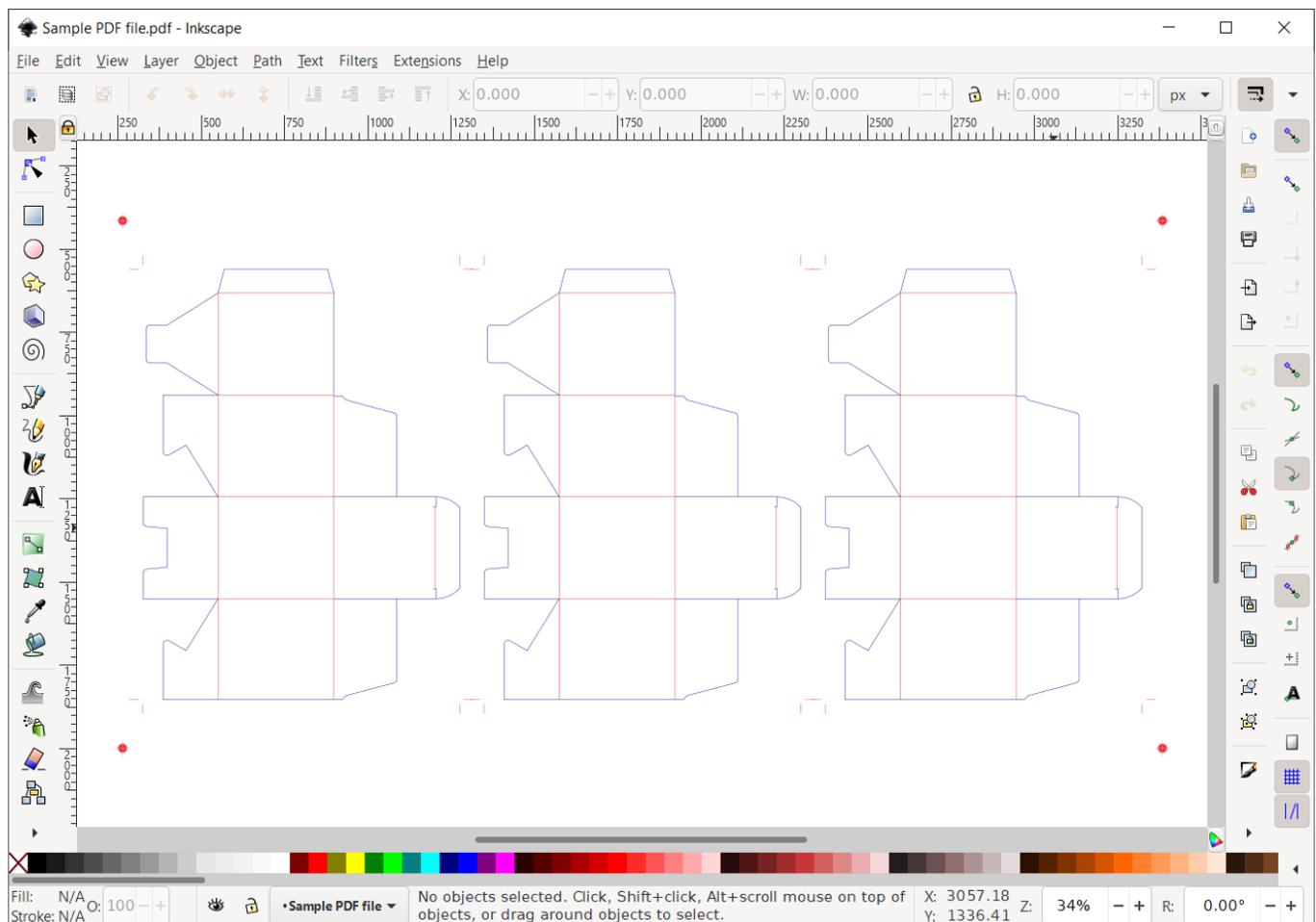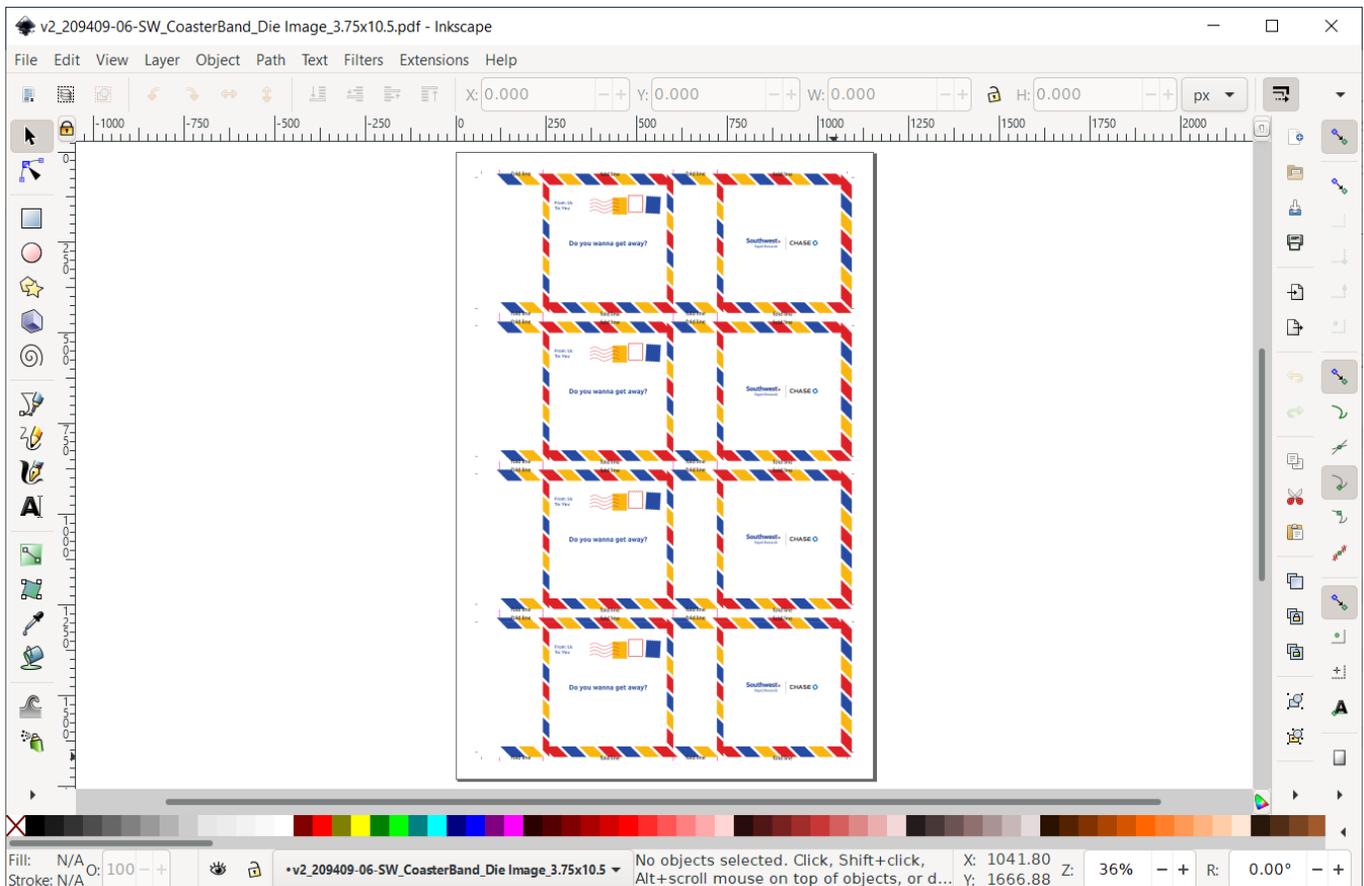
Miscellaneous CAD Changes

SVG files can now be imported, as are used for the Inkscape integration.

When hot-lighting text, text which is bolded now hot-lights in italic.

Construction lines now show any fill which has an explicit color.

Use Current Section no longer merges lines into the last section.

Various improvements were made to the blends options so that changing an existing blend for example works more reliably, provided you click on the blend and not the adjacent line to the blend. When doing a fix-blend you can just click anywhere near the blend.

A string function SNAME(Item) was added, which returns just the section name of the item.

CimPACK Portion of the Program

Rotary

Additional rotary cylinders were added as follows –

    Curioni 28
    TCY 50 with a 50mm bolt step and 20 holes around
   Ward 66 Serrapid SR4 on center 125 inch

There is now an initial version of Zero Crush options in rotary. A simple panel with a base score can be processed. You are given the option of picking corner anchors where a sequence of the rubber shapes start and stop. For a simple rectangular panel with a single score you could give the two corners away from the score and then the three edges of the panel are processed separately. You can also process a single chain of lines. There are also specific options for adding to the sides / lead / trail of handle style openings. Construction lines can be added as necessary, and also individual shapes can be dragged and dropped.
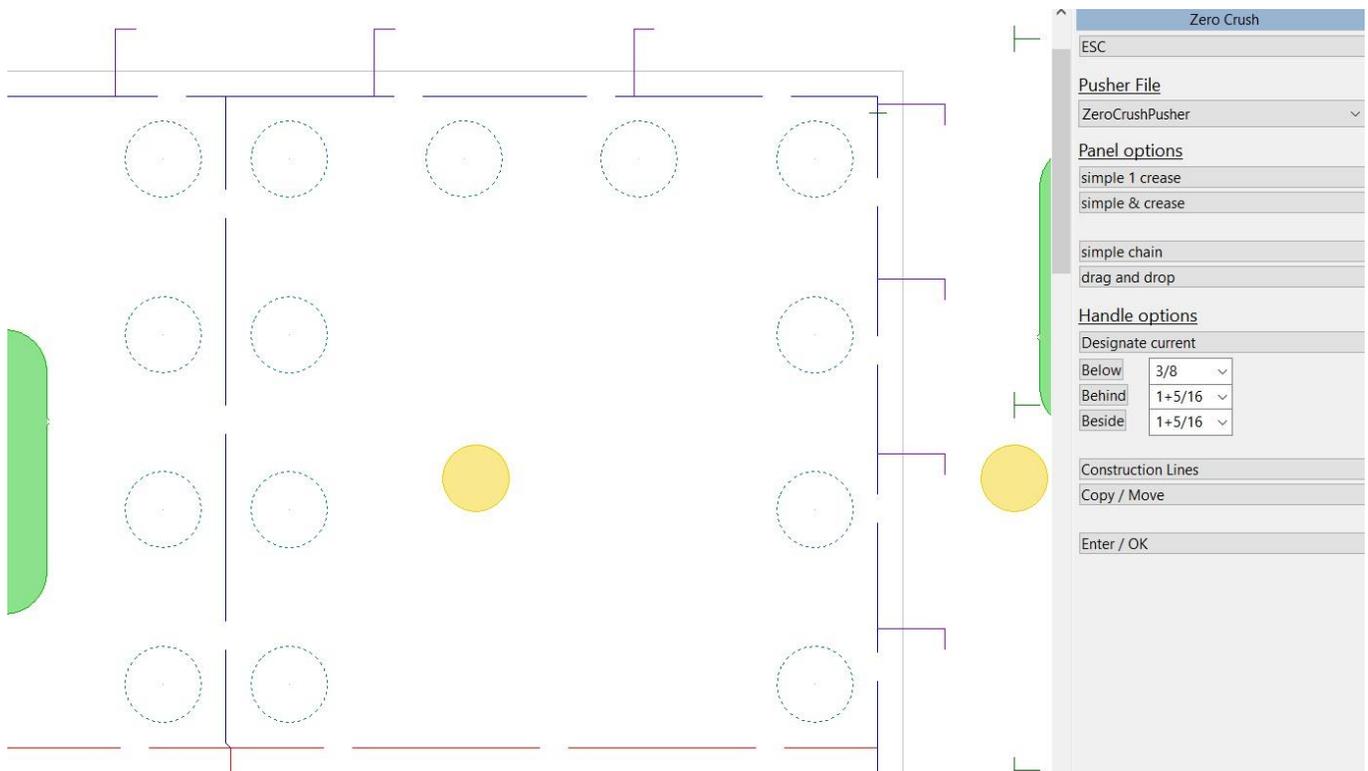
Here is an example of a single chain.
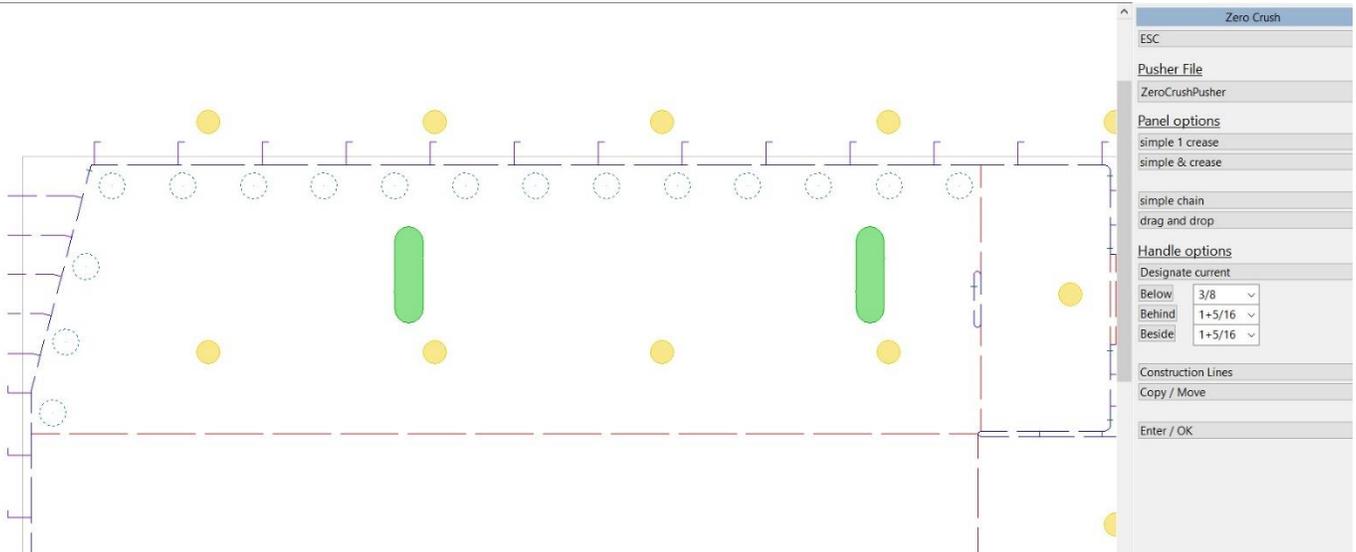
A Rotary Layboys option was added to Marks and Designations. You can add single layboys at a point or multiple spaced layboys to a panel. They can be added at exact positions or rounded to the nearest inch for example. There are also options to nudge a layboy to the left or right so adjustments can be made. Etched text is added marking the positions chosen as well as marks for the layboy locations.
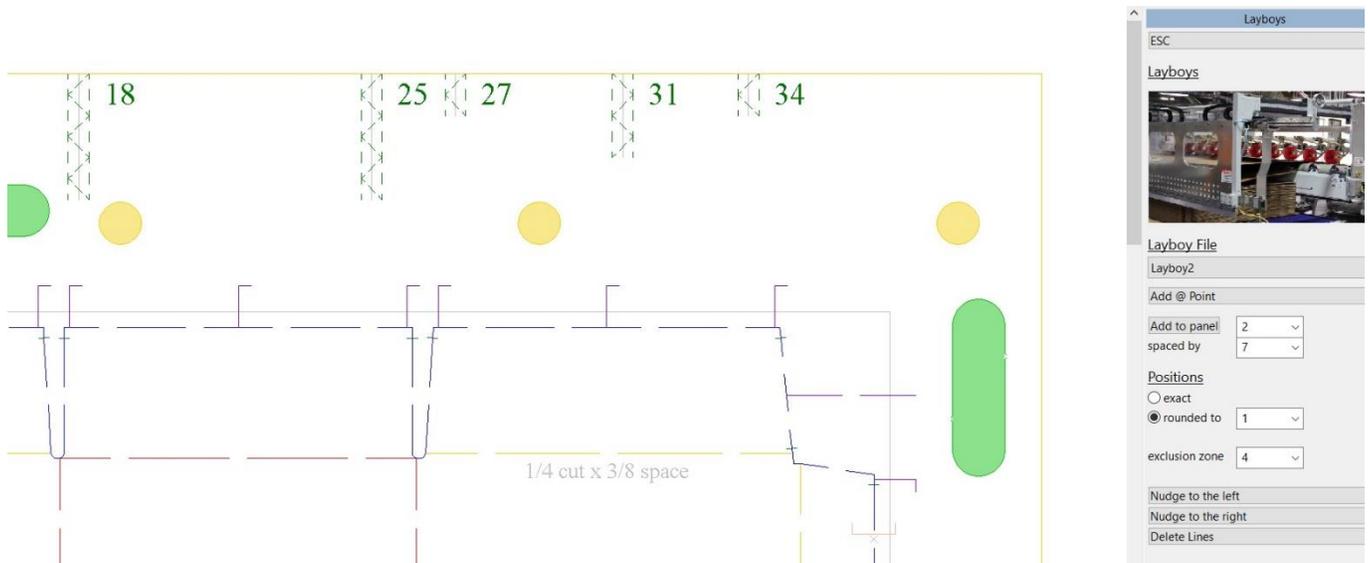
You can now have 3 different configurations for the Rotary Laser Routing Configuration and for the Flat Laser Routing Configuration.
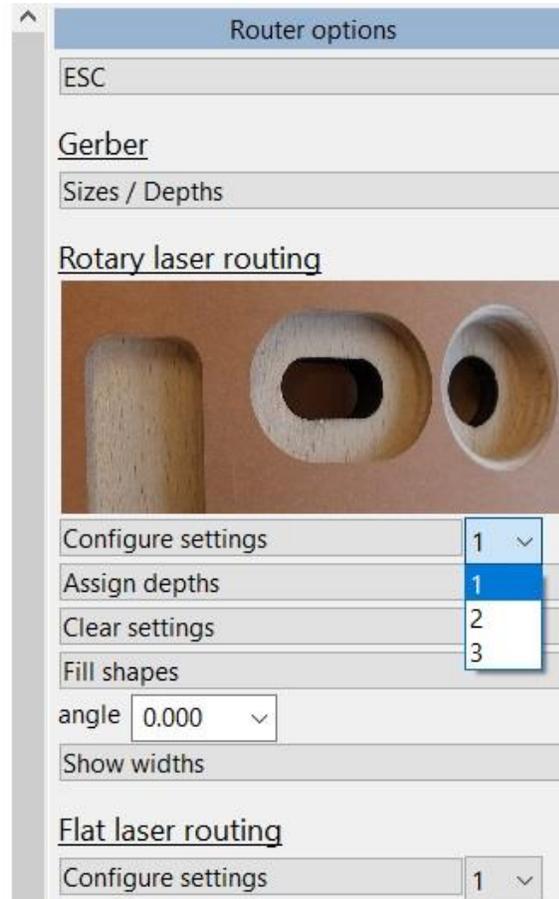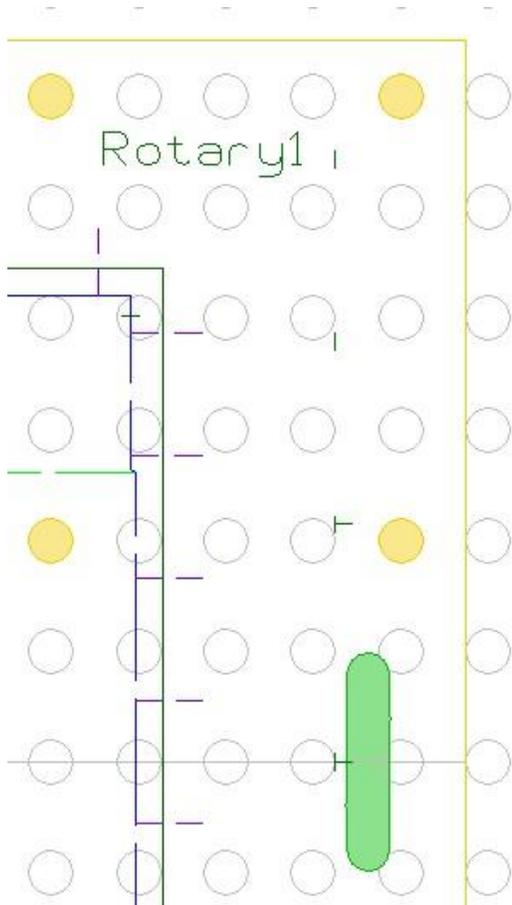
For Dual Cylinder rotary dies, when picking the lines to be flipped over when making the creasing die only machined lines can now be picked.

Rotary Le Gards option now also supports the Cast Le Gard. The count / reporting routine also supports them.

A new clamps / collar location file was added for the new Penta DUO 3015 combination laser.

Two addition rotary shell patterns were added, a 1 x 4 and a 2 x 4 pattern.

Rotary – Mitsubishi Evols

The Mitsubishi Evol Lifters option now has a single finger for punches option which special cases round punches. The lifter is angled to the center of the punch and other changes were made to improve this situation. Also changes were made to the calculation of the full lifter length as now recalculates based on the angle of the lifter through / across the cylinder so allows a true full length when going through the cylinder.
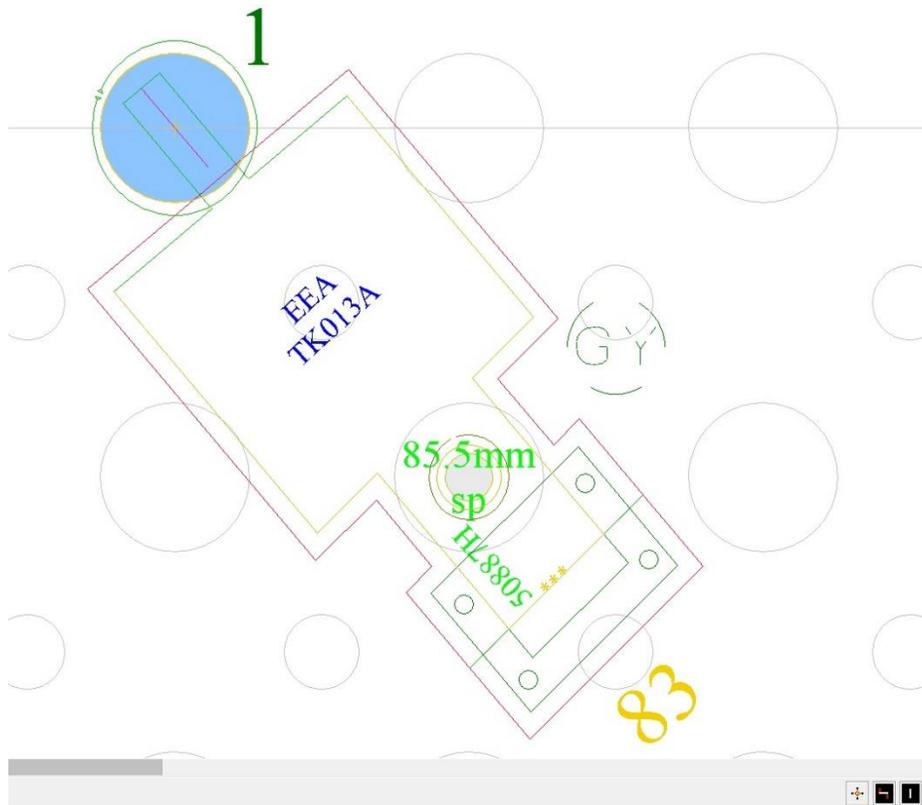
The Mitsubishi Evol Re-sequence option now also looks for the plastic piece corresponding to the lifters so can re-sequence that also. Similarly, if you delete a single lifter by selecting it the plastic piece corresponding to it is now selected and deleted automatically.

The Pace Punches Mitsubishi Ejector File was updated.

Stripping Boards/ Blankers

Two parameters were added for more control over constructed female stripping board support rails. One controls whether the corrugated SPO Rail #4 gets front attachment holes, and another controls whether you get the change sizes option for the rail nose and trail where applicable.

A parameter was added to control the vertical distances of the holes used on stripping board rails to mount the angled clamping jaw to the 2-inch SPO wooden rails. Normally the holes start 23mm down from the bar line but can be 26mm if using the Bobst red angled clamping jaw.

Female stripping board constructed rails are now automatically numbered with a sequential identifier, both the rail and the mounting position are marked.

For Female Stripping Boards Press Holes the holes on the vertical bar can now be slots instead of circles. A parameter was added which if set to a value becomes the extra horizontal adjustment for the mounting hole.

The block clearance option in MSB's was changed to also add clearances around vacuum holes. The clearance amount is now also controlled by a parameter.

The counter cutter output for the Lasercomb CMS will now also output a routed female stripping board file.

Changes were made to Female Stripping Boards to add the same reference lines as in the MSB's, but also taking into account any tabs and chamfers and premade protrusions. This makes it much easier to add pins and claws in the female itself that later get pulled into the MSB.

Ejection Rubber

The Ejection Rubber Delete options now correctly support the Undo function.

Rather than having some of the Ejection Rubber Outputs force a unit whether inches or mm, they are all now configurable to use the current units, inches, or mm. The settings are on the dialog for Names and Brands in Packaging Preferences. If you were using the Lasercomb / RMC / AXYZ for example you may need to make a change to your preferences.

Changes were made to the Atom DIE file creator so it can also process rubber files containing non closed shapes.

Ejection Rubber Layout / Arrange

Initial support was added to the Ejection Rubber Options Menu for the Virtual Rubber VR500 machine. A VR version of the Arrange Option was added which handles all the pieces / subroutines differently so the DXF files created are correct. When you first run it the main DXF file of the die / rubber combined is created. You can then arrange each type of rubber from this main file and export a DXF file of each. A base file is saved with all the pieces of rubber as subs, then you create each sheet layout from that complete file and output each with the new VR DXF Output option.

Diemaker Module

The Gards option in both flat and rotary now also support the Baysek Gard profiles.

The Baysek Dies menu now has an option to merge in any of the individual suckers to a prompted for position, a simple drag and drop.

The Nicks Menu now has an option to change some existing nicks to be another type of nick. The linetype and length and text of the nicks are all updated as needed, so nicks can now be changed instead of having to completely redo them.

The Bobst Set Diecutter option was updated to include the three newer 3.0 106 machines as have slightly different specifications.

The tonnage calculation now also prompts for a safety percentage so that for example you can get the calculated tonnage, but also get a starting point number that is say 20% below that so safer to start from. A parameter was added to control whether the striprules get rubber added for them or not, and a reduction amount for the rubber pressure for balance rules was added as no stock being cut there.
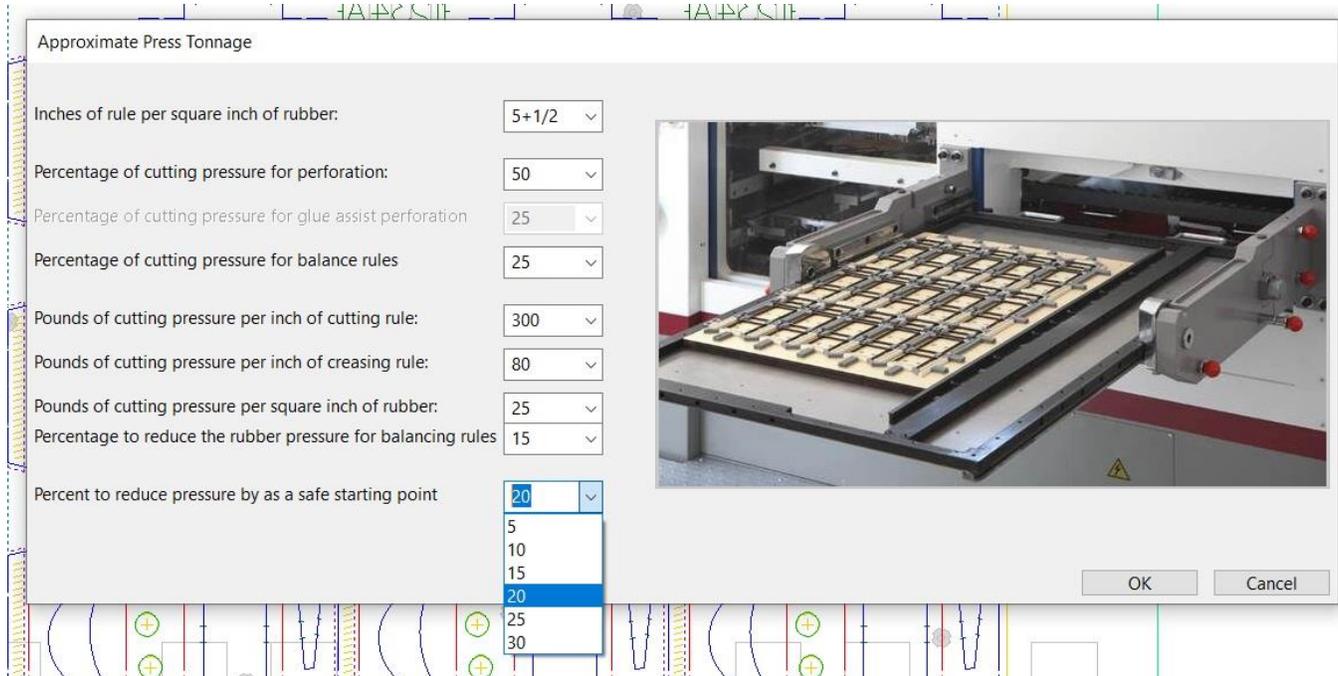
A parameter was added to default the "Linetype" option on DXF files in the Bender Output option.

A parameter was added to the nick text to control whether it goes perpendicular to the nick which is the current default, but can now be added parallel to the nick. The text is also spaced off the nick slightly now.

Parameters were added to control the fuzz amount allowed in spaced stripping rules. Otherwise, the spacing is allowed to vary up to 1/8 from what is entered.

The way the Print Gripper variables are handled inside the Dieboard Edge Menu was redone. Previously this would get reset to default values if you went back into the menu, so could change if using a non-standard size. The menu itself will no longer change these anymore. However, if you go into Set Diecutter and change the brand of diecutter from say Bobst to Heidelberg, then the variables would change. Changing the diecutter within the same brand of diecutter would not change it, just if you also change the brand itself.

The parameter that controls whether the dieboard centerline etches or not now allows more linetype options, 149 can be used as well as 101.

A parameter was added to control the amount of wood between the dovetailed pieces in flat dieboard dovetails, and changes were made to make the amount of wood left more consistent.

Designer Module

Printing Blankets now have an option to draw the bleed lines as well as cut them, so depending on the blanket type can be easier to see when cut.

An additional filter standard was added to a new seventh page.

Miscellaneous

Two additional forms macros were added, the current computer name and the current login name.

The Firstaid sections check now also looks for ruled lines incorrectly left in CROSS1/2/3/4.

An additional plotting map file was added for the Lasercomb CMS table to allow spot sheets to be drawn but also cut out as sends any knife designated lines (linetype 110) to the knife tool.

An additional cutscore linetype was added, cutscore in a channel. Steel and phenolic counter both look for it.

Updates were made to the DXF output portion of both the generic laser drivers and the bender output.

Initial support was added for the Bobst Masterplot. The machine can now be added as a counter cutter, and outputs for both steel and phenolic counters were added. The machine was added to the Plot Spooler so plotting and samples can be done. An output was added to the ejection rubber outputs for it also.

The CimPACK Utilities Menu now has an option for setting single parameters. You pick the range of parameters to work on, then individual parameter and the setting and description are displayed. The current setting is added to a setting field and you can change as needed. The changed parameter can then be written to your local or global parameters file if configured.

CimPACK

○ 0000..0999 Integers   ● Local   ○ Global
○ 1000..1999 Linear Distances
○ 2000..2999 Strings
○ 3000..3999 Independent reals
○ 4000..4999 OEM defined reals
● 5000..5999 Integers

Parameter number   5207   ∨   ↑₊   ↓⁻

par(5207) = 1   ;* Pinsetter - whether the anchor pins are being used on SB's = yes

Setting to use   1   ∨

☐ set as default   Set Parameter   Cancel

Steel & Phenolic Counters

Changes were made to steel counters to support tapered tools. The angle can be changed and the real channel widths are then calculated. You can also elect to have a deburring profile added to the channel with the offset from the edge of the tapered channel tops specified.

Steel Counter Channels (Grain/Flute direction: Horizontal)

With grain tool (&TW1): 0.064
Against grain tool (&TW2): 0.068
Give the 3rd spindle (&TW3): 0.000
Give the 4th spindle (&TW4): 0.000
☐ treat perf the same as knife

End treatment to use for crease channel lines
○ stop at the end of the channel profile
◉ shorten by half the TW setting
○ shorten by an additional amount instead
Amount to shorten the crease channel lines 1/32

option 1
◉ Shorten amount - to edge of channel: 0.018
◉ as square end   ○ as radius end
Shorten amount - cutcrease   0.020   0.018
Shorten amount - floating knives 0.025
☐ add second profile of width   0.021

☐ add markers to the ends of the crease channel lines
☐ change the outside channel profiles to construction lines
☐ channel deburring
offset from channel profiles   0.000
channel depth   0.018
channel tools taper angle   10
actual channel widths at surface 0.070   0.074

option 2
○ Shorten amount - fixed distance: 0.030
Give the tool diameter for the creases: 0.057

☐ set as default   OK   Cancel

The shortening amount for cutcrease in Steel Counters now better supports negative values so the creases can be extended as well as shortened. There is also now a second value so you can have a different shortening amount with versus against the grain.
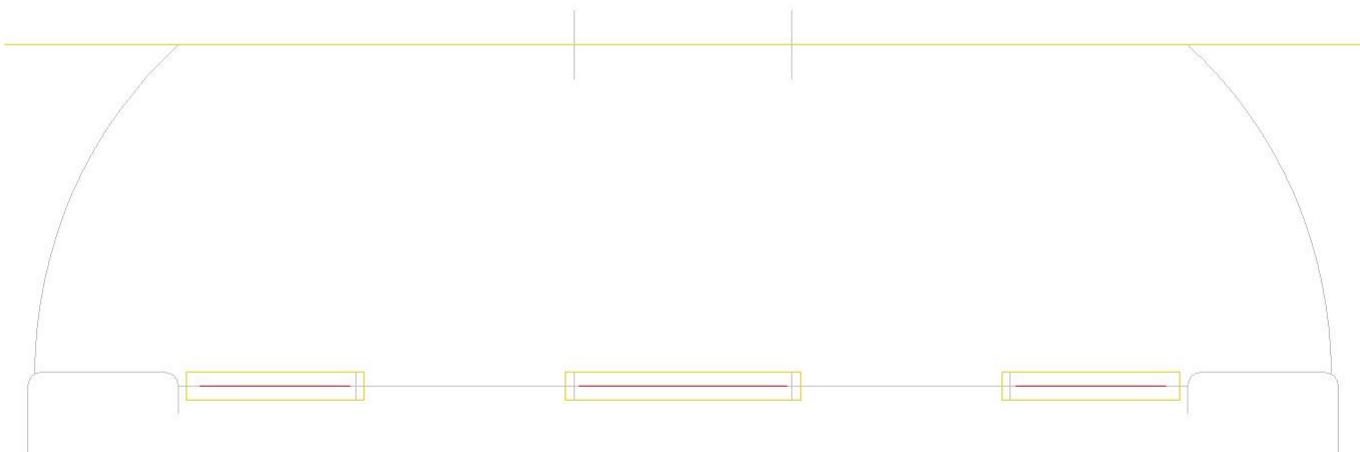
All the existing steel thin-plate files supported were moved under a new Legacy tab in Steel Counters. A new Bobst tab was added which has the latest Bobst plates which are different in a number of cases to the

old ones. There is both a Novacut 106 and a Novacut 106 3.0 for example as different. As some of the thin-plate options now are offset one side versus the other, the thin-plate option now also checks to see if the file is set as print side up not down.
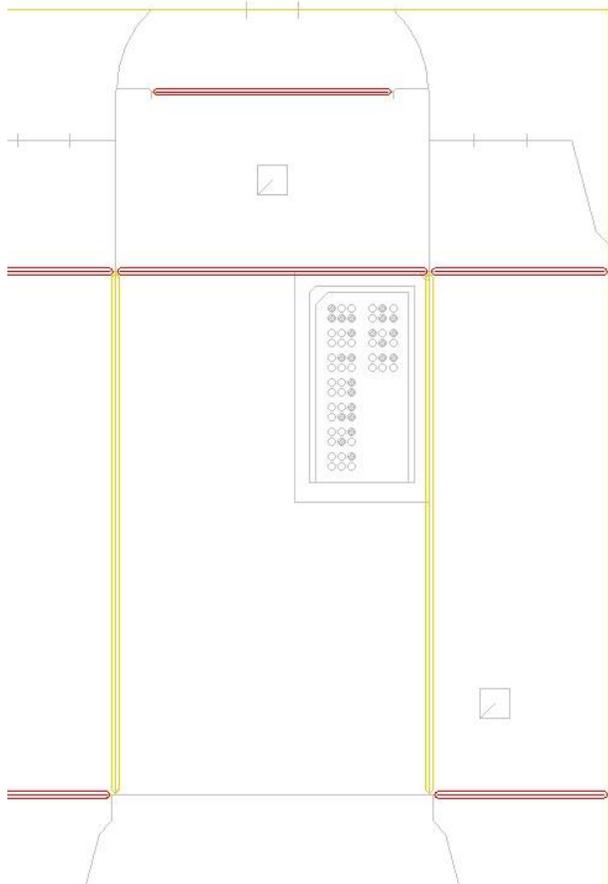
The Solvent Lines Menu in Phenolic Counters was changed to also have a hook for the regular Copy / Move menu.

A set as defaults option was added to the main steel counters dialog.

Support was added to the Lasercomb CMS machine driver to create steel counters. As the frontend cannot create all the layered channel profiles for milling down the channels CimPACK now creates them. A dialog gives control over how they are created with control over such things as the bit diameter being used and the amount of material that can be milled down with each pass so controlling how many layers need to be sent. Ten addition steel counter linetypes were added to support all the different passes at different depths to step down to the base of the channel.

For outputs, the using file can now be changed to any of the using files found in the appropriate folder.

Machine output - rt1ST.din : 0.000 x 0.000 inches

Configuration

| Lasercomb CMS | Elcede CounterMatePro | AXYZ Trident |

Machine output
- ● all lines
- ○ a selection

Units
- ● current
- ○ inches
- ○ mm.

Origin placement
- ○ move origin to lower left
- ● leave origin as is

- ☐ optimize output
  - ◉ by product
  - ○ simple/regular

- ☑ explode subs
- ☐ flip over
- ☐ rotate 90 degrees
- ☐ 180 degrees

Extension: `.din ▾`   `CmsSteel ▾`   🗒

CmsPertinax
CmsPertinaxInitial
CmsPertinaxPrompts
CmsRouting
CmsRoutingInitial
CmsRoutingPrompts
CmsSteel
CmsSteelInitial
CmsSteelPrompts
ProPertinax
ProPertinaxInitial
ProPertinaxPrompts

- ● Filename to create:
- **Folder:**
- ○ Com Port:

[OK]   [Cancel]

Licensed Laser Driver Modules

The LTFP-2515 flat laser was added to the list of Cutlite Penta lasers supported.

The Penta laser driver was changed to support both the original Galvo marking format revision 0 and the new revision 1 code, a parameter was added to control the format used. This allows the galvo to run in inches with this new format.

The Penta Galvo driver now allows the Galvo settings to be sent out, so the percentage of power, percentage of speed, number of repeats, and the frequency are all changeable and controllable.
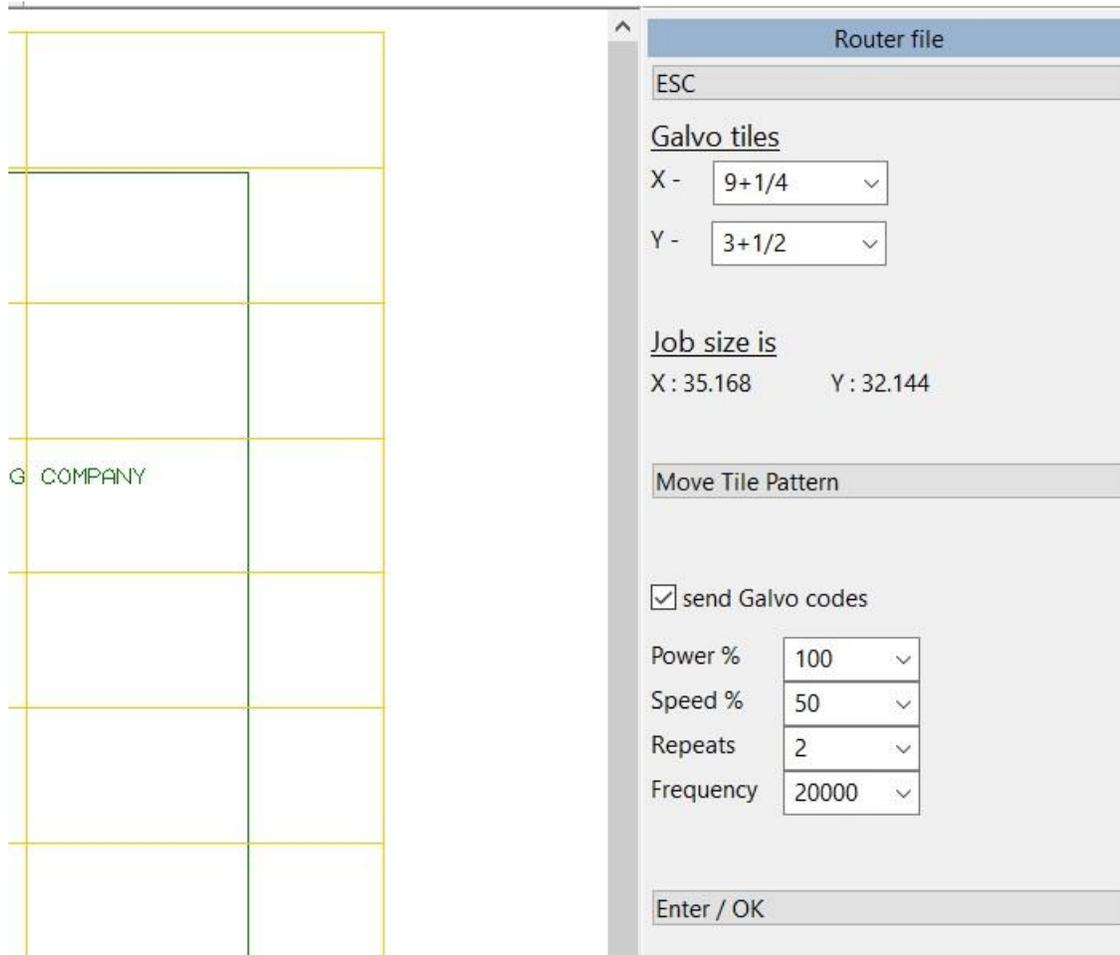
Three additional Elcede models were added to the laser configurations, the LCS evo, the LCS evo combo, and the LCS evo combo Quickmill.

Licensed Pinsetter Module

The Pinsetter Module now supports the SA38 Anchor Pins. They can be configured in the bins as any other pin. Various changes were made to wooden spacer blocks so they can avoid Pinsetter pins and the various plastic components. Pins can also be added around the back tab separators, and then avoided by the blocks. When the Anchor Pins are pulled into the male stripping board, the top 3.5mm holes are automatically turned off. A parameter was added to control whether or not the Anchor Pins are being used.
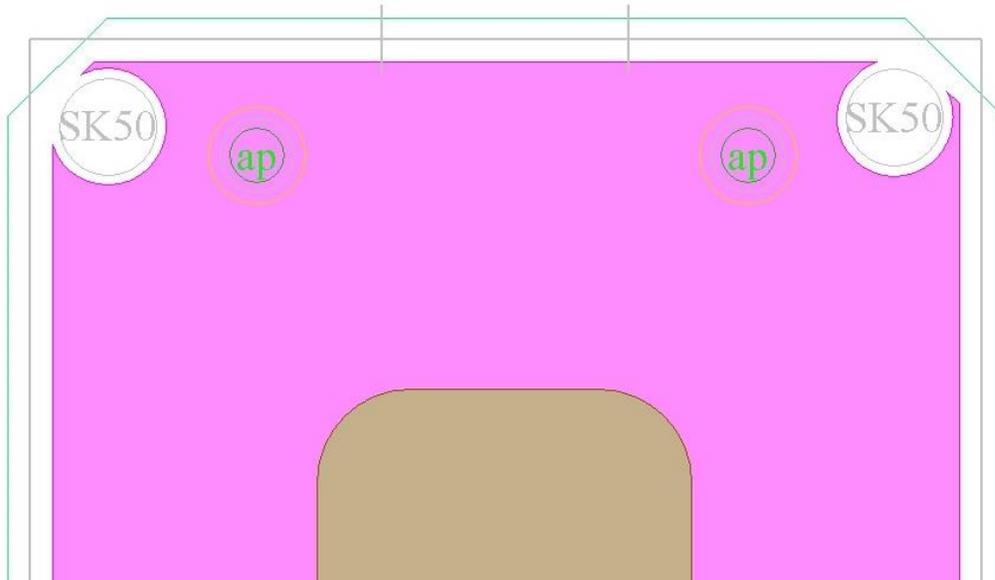
The Pinsetter Output for BX files now has output options for jobs over 1740mm. There is now a left and right side BX output option. Using three centerline notches on the male stripping board the board can be offset 190mm left and right for the 2 sides. The left option installs everything up to 1740mm, the right just whatever is on the right edge more than 1740mm from the side. Corresponding updates to the crash test check were also made.

Windows Requirements / Screen Resolutions

At this point, CimPACK requires Windows 7 and upward to operate, so XP and lower are not supported.

As time has gone on and the software has grown, menus and dialogs have grown in size as one would expect due to more and more features being added to them. As such, when it comes to screen resolutions, to best fit the menus and dialogs moving forward the recommended screen resolution is 1920 x 1080. You can run at a lower resolution but run the risk of some menus going off the screen etc. depending on the application.

If you purchase a 4K laptop with 3840 x 2160 screen resolution, for now run it at 1920 x 1080 resolution, effectively supporting real 4K resolution is something we are looking into.

Thanks

Notice to CimCAD / CimPACK Customers Upgrading from a version earlier than Version 11.0 (such as. 10.4)

Changes made to the Version 11.0 release shipped in July 2004 mean that if you have written any custom software, changes may be required. If that is the case and you need us to train you on the differences with 11.0 please contact us for a quote on that.

If you are upgrading from any 11.x version to 16.x there are no changes required, but if upgrading from Windows 10.4 to 18.x for example, then this applies to you.

If you paid us to write custom software for you, it may need some work done on it to function correctly in the new version.

Standard Laser Drivers and Router Maps supplied by Cimex will be converted free of charge, however means that we need a copy of your complete Local folder (including all sub-folders etc.) to convert, before we can ship your upgrade.

If you have any question on this, please contact us.

Thanks